

IN THE CLAIMS:

Claims 1, 2, 7, 9,10, 11, 17, and 18 are amended herein. No claims are added or canceled.

All pending claims are produced below. In addition, the status of each is also indicated below and appropriately noted as “Original”, “Currently Amended”, “Canceled”, “New”, “Withdrawn”, “Previously Presented”, and “Not Entered” as requested by the Office.

1. (Currently Amended) A method for secure encoding of data, the method comprising:
including
constructing a template agreed to for use by sender and receiver;
encoding data with reference to the template, thereby producing encoded data; and
decoding the data with reference to the template; [[,]]
wherein said template includes one or more element references, said element reference includes encoding attributes, which determine a [[the]] data element to encode or decode and the representation of the [[each]] data element; said element references are arranged relative to each other in a format defined by the template; and at least one of the element references specifies that the encoded data include a checksum.
2. (Currently Amended) A method for secure encoding of data comprising a set of data elements, the method comprising: including
constructing a template agreed to for use by sender and receiver;
encoding data with reference to the template, wherein said template includes one or more element references, each element reference corresponding to a data element of the set of data elements, said element reference including encoding elements which describe the encoding of the data, wherein at least one of the encoding elements, but not all of the encoding elements, specifies including a check digit along with the encoded form of its corresponding data element; and wherein encoding the

data with reference to the template comprises encoding each data element of the set of data elements using a corresponding one of the element references; and decoding the data with reference to the template, wherein said template includes one or more element references, said element reference includes encoding elements which describes the encoding of the data and data elements which represents the encoded data; said element references, encoding elements and data elements are arranged relative to each other in a format defined by the template.

3. (Original) A method as claimed in claim 1 wherein the element references are spaced apart by one or more literal elements.
4. (Original) A method as claimed in claim 2 wherein the element references are spaced apart by one or more literal elements.
5. (Original) A method as claimed in claim 3, wherein each template varies in the type of encoding for each data element and the arrangement of element references.
6. (Original) A method as claimed in claim 4, wherein each template may vary in the format in which said element references, literal elements, encoding elements and data elements are arranged and each template may vary in the manner of encoding of the data.
7. (Currently Amended) A method for secure encoding of data comprising a set of elements, the method comprising: including
 constructing a template agreed to for use by sender and receiver;
 encoding data with reference to the template; and
 decoding the data with reference to the template, wherein said template includes one or more element references, each element reference corresponding to an element of the set of elements, said element reference includes encoding elements which ~~describes~~ describe the encoding of the data and data elements which ~~represents~~ represent the encoded data; said element references, encoding elements and data elements are arranged relative to each other in a format defined by the template;

wherein an element reference includes an indication of the data element, the number of characters in the representation of the data element and an indication as to how the representation is formed and at least one of the encoding elements specifies that its corresponding element should be scrambled prior to encoding.

8. (Original) A method for secure encoding of data including
constructing a template agreed to for use by sender and receiver;
encoding data with reference to the template; and
decoding the data with reference to the template, wherein said template includes one or more element references, said element reference includes encoding elements which describes the encoding of the data and data elements which represents the encoded data; said element references, encoding elements and data elements are arranged relative to each other in a format defined by the template; wherein an element reference includes an indication of the data element, the number of characters in the representation of the data element and an indication as to how the representation is formed, wherein a data element is encoded by representing the data in an alternate base.
9. (Currently Amended) A method for secure encoding of data, comprising: ~~including~~
constructing a template agreed to for use by sender and receiver;
encoding data with reference to the template; and
decoding the data with reference to the template, wherein said template includes one or more element references, said element reference includes encoding elements which describes the encoding of the data and data elements which represents the encoded data; said element references, encoding elements and data elements are arranged relative to each other in a format defined by the template; wherein an encoded dataset is reduced in size by the use of large numerical bases ~~or~~
~~reencoding the data element.~~

10. (Currently Amended) A method for secure transmission of data, the method comprising:
including
constructing a template agreed to for use by sender and receiver;
encoding data with reference to the template, thereby producing encoded data;
transmitting the encoded data; and
decoding the data with reference to the template; ~~[[,]]~~
wherein said template includes one or more element references, said element reference
includes encoding attributes, which determine a ~~[[the]]~~ data element to encode or
decode and the representation of the ~~[[each]]~~ data element; said element
references are arranged relative to each other in a format defined by the template;
and at least one of the element references specifies that the encoded data include a
checksum.
11. (Currently Amended) A method for secure transmission of data comprising a set of data
elements, the method comprising: including
constructing a template agreed to for use by sender and receiver;
encoding data with reference to the template;
transmitting the encoded data, wherein said template includes one or more element
references, each element reference corresponding to a data element of the set of
data elements, said element reference including encoding elements which describe
the encoding of the data, wherein at least one of the encoding elements, but not all
of the encoding elements, specifies including a check digit along with the encoded
form of its corresponding data element; and wherein encoding the data with
reference to the template comprises encoding each data element of the set of data
elements using a corresponding one of the element references; and
decoding the data with reference to the template, ~~wherein said template includes one or~~
~~more element references, said element reference includes encoding elements~~
~~which describes the encoding of the data and data elements which represents the~~

~~encoded data; said element references, encoding elements and data elements are arranged relative to each other in a format defined by the template.~~

12. (Original) A method as claimed in claim 10 wherein the element references are spaced apart by one or more literal elements.
13. (Original) A method as claimed in claim 11 wherein the element references are spaced apart by one or more literal elements.
14. (Original) A method as claimed in claim 12, wherein each template varies in the type of encoding for each data element and the arrangement of element references.
15. (Original) A method as claimed in claim 13, wherein each template may vary in the format in which said element references, literal elements, encoding elements and data elements are arranged and each template may vary in the manner of encoding of the data.
16. (Original) A method for secure transmission of data including
constructing a template agreed to for use by sender and receiver;
encoding data with reference to the template;
transmitting the encoded data; and
decoding the data with reference to the template, wherein said template includes one or more element references, said element reference includes encoding elements which describes the encoding of the data and data elements which represents the encoded data; said element references, encoding elements and data elements are arranged relative to each other in a format defined by the template; wherein an element reference includes an indication of the data element, the number of characters in the representation of the data element and an indication as to how the representation is formed.
17. (Currently Amended) A method for secure submission of data comprising a set of elements, the method comprising: including

constructing a template agreed to for use by sender and receiver;
encoding data with reference to the template;
transmitting the encoded data; and
decoding the data with reference to the template, wherein said template includes one or more element references, each element reference corresponding to an element of the set of elements, said element reference includes encoding elements which ~~describes~~ describe the encoding of the data and data elements which ~~represents~~ represent the encoded data; said element references, encoding elements and data elements are arranged relative to each other in a format defined by the template; wherein an element reference includes an indication of the data element, the number of characters in the representation of the data element and an indication as to how the representation is formed; wherein a data element is encoded by representing the data in an alternate base; at least one of the encoding elements specifies that its corresponding element should be scrambled prior to encoding.

18. (Currently Amended) A method for secure transmission of data, comprising: including
constructing a template agreed to for use by sender and receiver;
encoding data with reference to the template;
transmitting the encoded data; and
decoding the data with reference to the template, wherein said template includes one or more element references, said element reference includes encoding elements which describes the encoding of the data and data elements which represents the encoded data;
said element references, encoding elements and data elements are arranged relative to each other in a format defined by the template; wherein an encoded dataset is reduced in size by the use of large numerical bases ~~or re-encoding the data element.~~